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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,789	10/26/2000	Graham Mensa-Wilmot	05516/084001	5600
22511	7590	04/14/2004	EXAMINER	
OSHA & MAY L.L.P. 1221 MCKINNEY STREET HOUSTON, TX 77010			GAY, JENNIFER HAWKINS	
			ART UNIT	PAPER NUMBER
			3672	

DATE MAILED: 04/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Interview Summary

Application N .

09/697,789

Applicant(s)

MENSA-WILMOT ET AL.

Examiner

Jennifer H Gay

Art Unit

3672

All participants (applicant, applicant's representative, PTO personnel):

(1) Jennifer H Gay.

(3) \_\_\_\_\_.

(2) Ahab Ayoub.

(4) \_\_\_\_\_.

Date of Interview: 08 April 2004.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☒ Yes e) ☐ No.

If Yes, brief description: Attachment A (Purposed Arguments).

Claim(s) discussed: 5-11.

Identification of prior art discussed: Tomlinson et al. (US 4,787,466).

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

  
Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

#### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

##### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

##### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

#### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Applicant's attorney contacted the examiner regarding the Final Rejection mailed 2/12/04 and submitted proposed arguments (Attachment A). Applicant argued that the relief groove was formed on the mounting pad which was formed on the blade of the drill bit and Tomlinson et al. does not teach that the relief groove is formed on a mounting pad which is formed on the blade of the drill bit. After consulting her supervisor and a brief review of the specification, the examiner determined that the instant application defines the mounting pad as being a physical, integral part of the drill bit blade and formed is at the same time as the drill bit. Based on this definition, the examiner agrees with applicant's argument and believes that the application would be in condition for allowance if the proposed arguments (Attachment A) was filed formally. Applicant's attorney to file the proposed arguments formally..

U.S. Patent Application Serial No. 09/697,789  
Attorney Docket No. 05516.084001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Graham MENSA-WILMOT et al.	Art Unit :	3672
Serial No.:	09/697,789	Examiner :	Gay, Jennifer H.
Filed :	October 26, 2000	Confirmation No.:	5600
Title :	STRUCTURE FOR POLYCRYSTALLINE DIAMOND INSERT DRILL BIT BODY AND METHOD FOR MAKING		

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**PROPOSED SUBMISSION FOR DISCUSSION IN EXAMINER INTERVIEW**

**SCHEDULED FOR APRIL 8, 2004**

In response to the final Office Action dated February 12, 2004, please consider  
the following remarks.

U.S. Patent Application Serial No. 09/697,789  
Attorney Docket No. 05516.084001

### REMARKS

Please reconsider the application in view of the following remarks. Applicant thanks the Examiner for carefully considering this application.

#### **Disposition of Claims**

Claims 5-11 are pending in this application. Claims 5, 8 and 11 are independent. The remaining claims depend, directly or indirectly, from claims 5 and 8.

#### **Rejection(s) under 35 U.S.C § 103**

Claims 5, 7, 8, 10 and 11 stand rejected under 35 U.S.C. § 103 as obvious over U.S. Patent No. 6,006,846, issued to Tibbitts et al. ("Tibbitts") in view of U.S. Patent No. 4,787,466, issued to Tomlinson et al. ("Tomlinson"). This rejection is respectfully traversed.

A drill bit according to the embodiments of claims 5, 7, 8, 10, and 11 comprises a mounting pad having a relief groove (26 in Fig. 3) *formed in the bit body* under a position of a diamond table of a cutting element. Claims 5 and 8 further require that the relief groove extends back from an outer surface of the blade at least about 40 percent of that portion of a thickness of the diamond table that does not extend past the outer surface. The formation of such a groove at this location with respect to the diamond table advantageously provides stress relief between the diamond table and bit body, while obviating the need to dispose the diamond table so that it protrudes beyond the bit body.

As noted by the Examiner, Tibbitts fails to disclose or suggest a mounting pad including a relief groove that extends back from an outer surface of the blade at least

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Attorney Docket No. 05516.084001

about 40 percent of that portion of a thickness of the diamond table that does not extend past the outer surface. Tomlinson also fails to disclose or suggest such a groove. In contrast to the present invention, *Tomlinson deals only with the configuration of a cutter, or "pin"* and makes no reference to any type of mounting pad formed in a blade of a drill bit, as required by the instant claims. The abrasive compact portion of the Tomlinson pin lies wholly *within the side surface 16 of the elongate pin* (Col. 2, ll. 32-33) and the groove formed in the Tomlinson pin is to *"prevent the abrasive compact coming into contact with the elongate pin 10"* (Col. 2, ll. 34-35). Furthermore, the depth of the groove formed in the Tomlinson pin *"is greater than the width of the compact"* (Col. 2, ll. 42-43).

Applicants agree with the Examiner that Tomlinson does in fact disclose a groove. Applicants disagree, however, that Tomlinson discloses a groove *in the bit body* as required by the instant claims. Applicants fail to discern any disclosure in Tomlinson that supports the Examiner's statement that Tomlinson teaches "a groove formed underneath the diamond table and in the portion of the *drill bit/cutter* that the diamond table is secured to" (p. 4 of the Office Action). First, Tomlinson does not teach that the diamond table is secured to a bit body at all, only to a composite abrasive compact 22 located within the recess 20 of a *pin* (Col. 2, ll. 22-24). Secondly, Tomlinson does not disclose or suggest any configuration by which the disclosed pin might be mounted to a drill bit, stating only that such a pin might be used with abrasive tools such as drill bits and mining picks (Col. 1, ll. 64-65). Therefore, Tomlinson completely fails to disclose or suggest a mounting pad, much less any particular configuration of a mounting pad, such as one having a relief groove formed therein, as claimed.

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Attorney Docket No. 05516.084001

Although the Examiner states that Tomlinson is relied upon only for the disclosure of a relief groove, the instant claims require a *particular configuration of a relief groove*, in particular, one that is *disposed in a mounting pad formed in a bit body*. Nothing in either Tibbets or Tomlinson suggests or discloses such a configuration. Accordingly, because both Tibbets and Tomlinson fail to disclose or suggest a mounting pad and relief groove *in a bit body*, withdrawal of this rejection is respectfully requested.

Claims 6 and 9 stand rejected under 35 U.S.C. § 103 as obvious over Tibbitts in view of Tomlinson, and further in view of U.S. Patent No. 6,220,117, issued to Butcher ("Butcher"). This rejection is respectfully traversed.

As previously stated, both Tibbitts and Tomlinson fail to disclose or suggest a relief groove in a mounting pad *of a bit body*, as required by claims 5 and 8. Butcher also fails to disclose or suggest such a groove. Accordingly, claims 6 and 9, which depend from independent claims 5 and 8, are patentable over this combination of references for at least the same reasons stated above. Therefore, withdrawal of this rejection is respectfully requested.

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